

## TITLE V- PROPERTY AND LAND USE

## CHAPTER 44

## ZONING – AIRPORT HEIGHT AND HAZARD REGULATIONS

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44.01 STATEMENT OF INTENT. These regulations are adopted pursuant to the authority conferred on the Warren County Board of Supervisors by Chapters 329 and 335, Code of Iowa. It is the intent of these regulations that the prevention of the creation or establishment of airport hazards and the marking and lighting of existing airport hazards are public purposes. It is further intended that in the interest of the public health, public safety and general welfare that creation of airport hazards be prevented.

44.02 DEFINITIONS. For the purpose of this chapter certain words, terms and phrases are herein defined, as follows:

1. “Airport” means the Des Moines International Airport.
2. “Airport Elevation” means the reference point of an airport’s usable landing area measure in feet above mean sea level, which elevation is established to be 958 feet mean sea level.
3. “Airport Hazard” means any proposed manmade objects or objects of natural growth and terrain which would exceed the federal obstruction standards as contained in 14 Code of Federal Regulations Sections 77.21, 77.23, and 77.25 as revised March 4, 1972, and which obstruct the air space required for the flight of aircraft and landing or takeoff at an airport or is otherwise hazardous to such landing or taking off of aircraft.
4. “Airport Primary Surface” means a surface longitudinally centered on a runway. When the runway has a specially prepared hard surface, the primary surface exceeds 200 feet beyond each end of that runway. The width of the primary surface of a runway will be that width prescribed in Part 77 of the Federal Aviation Regulations (FAR) for the most precise approach existing or planned for either end of that runway. The elevation of any point on the primary surface is the same as the elevation of the nearest point on the runway centerline.
5. “Airspace Height” means, for the purpose of determining the height limits in all zones set forth in this chapter and shown on the Airport Height and Hazard

Zoning Map, the datum is mean sea level elevation unless otherwise specified.

6. "Decision Height" means the height at which a decision must be made during an ILS instrument approach to either continue the approach or to execute a missed approach.
7. "Instrument Runway" means a runway having an existing instrument approach procedure utilizing air navigation facilities or area type navigation equipment, for which an instrument approach procedure has been approved or planned.
8. "Minimum Descent Altitude" means the lowest altitude, expressed in feet above mean sea level, to which descent is authorized on final approach or during circle-to-land maneuvering in execution of a standard instrument approach procedure, where no electronic glide slope is provided.
9. "Minimum Enroute Altitude" means the altitude in effect between radio fixes which assures acceptable navigational signal coverage and meets obstruction clearance requirements between those fixes.
10. "Minimum Obstruction Clearance Altitude" means the specified altitude in effect between radio fixes on VOR airways, off-airway routes, or route segments which meets obstruction clearance requirements for the entire route segment and which assures acceptable navigational signal coverage only within 22 miles of a VOR.
11. "Runway" means a defined area on an airport prepared for landing and takeoff of aircraft along its length.
12. "Visual Runway" means a runway intended solely for the operation of aircraft using visual approach procedures with no straight-in instrument approach procedure and no instrument designation indicated on a Federal Aviation Administration (FAA) approved airport layout plan, a military services approved military airport layout plan, or by any planning document submitted to the FAA by competent authority.

**44.03 AIRPORT ZONES AND AIRSPACE HEIGHT LIMITATIONS.** In order to carry out the provisions of this chapter, there are hereby created and established certain zones which are depicted on the Airport Height and Hazard Zoning Map. A structure located in more than one (1) zone of the following zones is considered to be only in the zone with the more restrictive height limitation. The various zones are hereby established and defined as follows:

1. **Horizontal Zone.** The land lying under the Horizontal Surface, a plane 150 feet above the established airport elevation, the perimeter of which is constructed by swinging arcs of 10,000 feet radii from the center of each end of the primary surface of Runways 30R and 5 and connecting the adjacent arcs by lines tangent to those arcs. No structure shall exceed the Horizontal Surface, within the

boundaries of the Horizontal Zone located in Warren County as depicted on the Airport Height and Hazard Zoning Map.

2. Conical Zone. The land lying under the Conical Surface, a surface extending outward and upward from the periphery of the Horizontal Surface at a slope of 20 to 1 for a horizontal distance of 4,000 feet. No structure shall exceed the Conical Surface, within the boundaries of the Conical Zone located in Warren County, as depicted on the Airport Height and Hazard Zoning Map.
3. Approach Zone. The land lying under the Approach Surface, a surface longitudinally centered on the extended runway centerline and extending outward and upward from the end of the primary surface of Runway 30R. The inner edge of this Approach Surface is 1,000 feet wide and the outer edge of the Approach Surface is 16,000 feet wide. The Approach Surface extends for a horizontal distance of 10,000 feet at a slope of 50 to 1 and then 12,000 feet at a slope of 40 to 1, and then restricted to 500 feet above the airport elevation for 28,000 feet. No structure shall exceed the Approach Surface to Runway 30R, located within Warren County, as depicted on the Airport Height and Hazard Zoning Map.
4. Transitional Zone. The land lying under the Transitional Surfaces, surfaces extending outward and upward from the sides of the primary surface at a slope of 7 to 1 until said surfaces intersect the Horizontal Surface. With respect only to Runway 30R, additional Transitional Surfaces shall extend outward and upward at a slope of 7 to 1 from the sides of the Approach Surface for those portions of the Approach Surface which project through and beyond the limits of the Conical Surface. The Transitional Zone under these Surfaces extends a distance of 5,000 feet measured horizontally from the edge of the Approach Surface and at right angles to the runway centerline. No structure shall exceed the Transitional Surface to Runway 30R, located within Warren County, as depicted on the Airport Height and Hazard Zoning Map.
5. No structure shall be erected in the unincorporated area of Warren County that raises the published Minimum Descent Altitude or Decision Height for an instrument approach to any runway, nor shall any structure be erected that causes the Minimum Obstruction Clearance Altitude or Minimum En route Altitude to be increased on any Federal Airway in the unincorporated area of Warren County.

**44.04 USE RESTRICTIONS.** Notwithstanding any other provisions of Section 44.03, no new use may be made of land or water within the unincorporated area of Warren County in such a manner as to interfere with the operation of any airborne aircraft. The following special requirements shall apply to each permitted use.

1. All manmade structures, objects of natural growth and uses of land that were in existence prior to the effective date of the Zoning Ordinance shall be exempt from any and all restrictions established by the Zoning Ordinance, with the exception of marking and lighting of any existing manmade structure that exceeds the

limitations set herein.

2. All lights or illumination used in conjunction with street, parking, signs or use of land and structures shall be arranged and operated in such a manner that it is not misleading or dangerous to aircraft operating from the airport or in the vicinity thereof.
3. No operations from any use shall produce smoke, glare, or other visual hazards which are sufficient to endanger aircraft operating from the airport or in the vicinity thereof. When the Aviation Director of the Des Moines International Airport believes such a hazard may exist, a determination shall be obtained from the FAA as to the existence of such a hazard.
4. No operations from any use in the unincorporated area of the County shall produce electronic interference with navigation signals or radio communication between the airport and aircraft.

#### 44.05 LIGHTING.

1. Notwithstanding the provisions of Section 44.03, the owner of any structure over 200 feet above ground level must install on the structure lighting in accordance with FAA Advisory Circular 70-7460-1D and amendments. Additionally, the owner of any structure constructed after the effective date of the Zoning Ordinance and exceeding 949 feet above ground level, must install on that structure high intensity white obstruction lights in accordance with Chapter 6 of FAA Advisory Circular 70-7460-1D and amendments.
2. Any variance granted under the provisions of Section 44.06 of this chapter may be so conditioned as to require the owner of the structure or growth in question to permit the City of Des Moines at its own expense to install, operate, and maintain thereto such markers or lights as may be necessary to indicate to pilots the presence of an airport hazard.

44.06 VARIANCES. Any person desiring to erect or increase the height of any structure, or to permit the growth of any tree, or otherwise use said person's property in violation of any section of this chapter, may apply to the Board of Adjustment for a variance from such regulations. No application for a variance to the requirements of this chapter may be considered by the Board of Adjustment unless a copy of the application has been submitted to the Aviation Director of the Des Moines International Airport for an opinion as to the aeronautical effects of such a variance. If the Aviation Director responds to the Board of Adjustment in favor of the variance, or if the Aviation Director does not respond within fifteen (15) days from receipt of the application, then the Board shall make its decision to grant or deny the variance based upon a preponderance of the evidence. If the Aviation Director responds in opposition to the variance within fifteen (15) days from receipt of the copy of the application, then the Board shall grant the variance only if clear and convincing evidence outweighs the opinion of the Aviation Director.

44.07 BOARD OF ADJUSTMENT. Except as provided in Section 44.06 of this chapter, the Board of Adjustment, as provided in Section 43.07, 43.08, and 43.09 of the Zoning Ordinance, shall have the same powers and duties and its procedures and appeals regarding this chapter, in all respects, shall be governed by and be subject to the same provisions established in Sections 43.06 through 43.09, inclusive.

44.08 ADMINISTRATION AND ENFORCEMENT. The Zoning Administrator appointed pursuant to Section 43.02 shall have the duty to administer the regulations prescribed in this chapter. Enforcement of this chapter shall be in accordance with the procedures set forth in Sections 43.02 through 43.05, inclusive.

44.09 CONFLICTION REGULATIONS. Where there exists a conflict between any of the regulations or limitations prescribed in this chapter and any other regulations applicable to the same area, whether the conflict be with respect to height of structures, the use of land or any other matter, the more stringent limitation or requirement shall govern and prevail.